

REQUEST FOR RECONSIDERATION
U.S. Application No. 09/888,656

unpatentable over Kusase in view of Aversten and Umeda et al. (U.S. Patent No. 6,124,660).

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kusase in view of Aversten, Baines and “ordinary skill in the art”.

Applicant respectfully submits that the claimed invention would not have been rendered obvious in view of the cited references.

As shown in Figures 13-16, Kusase discloses a stator winding wherein end portions 433d of copper conductor segments are joined at a connected portion 433f which is ball-shaped (i.e., a liquid drop, a raindrop, or a flat ball) and has a smooth roundish surface. The connected portion 433f covers the edge and side surfaces of end portion 433d, thereby covering all sharp corner edges. The connected portion 433f is formed by dipping the end portions 433d in a tank 440 of melted solder 430 so that the melted solder 430 is coated on the end portions 433d.

Aversten is directed to metal stud or pin adapted to be attached to a metallic member. In particular, as shown in Figs. 1-6, a piece of solder 9 is inserted in a terminal recess 7 of a brass pin 3 so that the pin 3 may be attached a metallic member by applying an electric current to the pin 3 in order to melt the solder 9.

As the Examiner correctly concedes, Kusase does not disclose a stator winding comprising a plurality of conductors including end portions joined to each other by a metal interposed between the end portions. In view of this deficiency, the Examiner cites Aversten for allegedly disclosing “that it is well known in the art to interpose melted metal such as silver between metallic members (column 2, lines 60-68).” Further, the Examiner asserts that “[i]t would have been obvious to ... design a stator winding for a generator as disclosed by Kusase et

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al. and to modify [Kusase's] invention by interposing a molten metal with a lower melting point between two metallic members for the purpose of avoiding melting the metallic members and avoiding oxidizing the melted metal as disclosed by Aversten."

Applicant respectfully submits that one of ordinary skill in the art would not have been motivated to modify the connection (joint) portions of Kusase so that the metal joining the end portions of the conductors is interposed between the end portions based on the teachings of Aversten (or the other cited references). In particular, Kusase teaches away from this feature of the present invention, and such modification would impermissibly change the principle of operation of Kusase's connection portions. That is, the stated objective of Kusase is to eliminate the sharp edges of the joined end portions of the conductor segments because the sharp edges may cause concentration of mechanical stress and electrochemical stress, and facilitate accumulation of dust or foreign particles.¹ Thus, modifying the stator winding of Kusase to join the end portions of the conductor segments by inserting a piece of solder between the end portions and melting the solder (instead of dipping the conductor segments in a tank of molten solder so as to form a ball-shaped connected portion cover the outer surfaces and edges of the conductor segments) would completely defeat the stated objectives of Kusase's teachings and change the principle of operation of the disclosed structure of the connection portions. However, as set forth in MPEP 2143.01, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of

¹ See Kusase at col. 1, lines 28-50; col. 3, lines 58-62; and col. 5, line 64 - col. 6, line 14.

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the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Further, Applicant respectfully submits that the Examiner's alleged motivation for modifying Kusase based on the teachings of Aversten is flawed. Kusase's method of joining the end portions of the conductor segments (i.e., dipping the end portions in a tank of melted solder) already produces a connected portion which "avoid[s] melting the metallic members and avoid[s] oxidizing the melted metal." Accordingly, one skilled in the art would not be motivated to change the structure of a stator winding when that winding already possesses the benefits of the proposed modification. Therefore, since the Examiner's sole reasoning for modifying Kusase's connection of the conductor segments based on the teachings of Aversten is to accomplish something that is already present in the Kusase reference, the Examiner has failed to provide a convincing line of reasoning of why one skilled in the art would have found the combination of the teachings of the cited references obvious.

Accordingly, Applicant respectfully submits that claims 1-5 and 14 should be allowable because one of ordinary skill in the art would not have been motivated to combine and modify the cited references to produce the claimed invention.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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23373

CUSTOMER NUMBER

Date: April 26, 2005

Attorney Docket No.: Q64995